**June Meeting****Friday, June 25  
7:30 pm**

\*\*\*\*\*

**Field Day****Lundborg Landing  
Bethel Island**

Join us for the monthly meeting at the club's field day site at Lundborg Landing on Bethel Island. For directions to the site, see <http://www.lundborglanding.com>.

**Note: The meeting this month is on the 4<sup>th</sup> Friday.**

**Presidential QRM****By Trevor Hall, WA6JAU**

Thanks to the coordination effort of Bill Krumlinde, KF6PQE, a group of MDARC members were able to attend the Hamvention in Dayton Ohio. In our group there was Byron Cannon, W6QNE, John Schuler, KG6CZX, Dave Gordon, N6SEW, and we also found Tim Barrett, K6BIV, when we got there.

The Hamvention is huge. It has the largest swap meet outside and trade show inside that I have ever seen. If you needed anything from complete stations to electronic parts you could find it. I purchased a 64 MB EDO-SODIMM for my old laptop and it works great. The memory chips I purchased from Fry's and CompUSA never worked and had to be returned. If you want to attend seminars, though, wait for PACIFICON. I was not impressed with the seminars at the Hamvention and there was not enough time to attend them anyway.

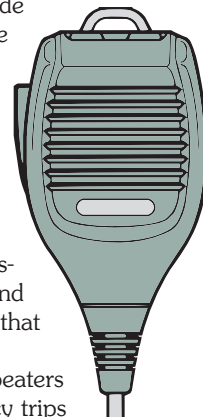
We had seven great service events with the Fremont Freewheeler's Primavera, the Mount Diablo Trail Riders Association, the Top Hat Classic, MS Walk, March of Dimes Walkathon, the Devil Mountain Run, and Human Race over the last two months. Thanks to all the volunteers that have coordinated and serviced in these events.

Thanks to the efforts of the technical committee for keeping the repeaters on the air. Howard Burk, KE6PTT, had to make a couple of emergency trips due to damage from rats. I am getting great enjoyment from IRLP.

Congratulations to John Schulze, KR6CR, for winning the FT2800M 2-meter mobile radio at the last general meeting. There will be another FT2800M 2-meter mobile to win at the Field Day meeting on June 25 at Lundborg Landing in Bethel Island. Yes, the date is the fourth Friday this month, so please mark it on your calendar.

Thanks to Bob Beard, KG6FPZ, for running the general meeting this month. I was delayed at work and was unable to attend. Also thank you to Robert Hampton, KF6FGH, for the great talk on MARS.

June is packed full of great events which include the Alcatraz Swim, Oakland Hills Trailride and Field Day. Look on the calendar on the back of this carrier and we will look forward to seeing everyone.

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**MDARC Moves into the Digital World****By Tim Barrett, K6BIV**

Over the past few weeks MDARC has implemented a new VoIP (Voice over Internet Protocol) computer on the top of Mt. Diablo. This new system is currently running RedHat 9.0 and has EchoIRLP software installed on it. This EchoIRLP software allows a user to connect the MDARC repeaters to other repeaters or individuals around the world and carry on a voice conversation with those distant stations. The new system is currently accessible from the club's 440 repeater at 441.325MHz. PL 100Hz. Over the next few months it is the intention of the club to make this new system available to all of the club's voice repeaters.

The EchoIRLP software consists of two separate software systems.

The first is EchoLink which allows a user to connect to other hams that are logged on to the EchoLink network as a repeater, link or user. This connection has the ability to be made to several different stations at the same time and can be set to a "maximum" number depending on the speed of the Internet connection. For the MDARC repeaters this number is currently set for 5. The user software is available for both PC's & Macs (EchoMac). Please make sure to forward UDP ports 5198 - 5199 and TCP port 5200 if you are behind a router or firewall. The EchoLink software is available at [www.echolink.org](http://www.echolink.org) and the EchoMac software is available at [www.dogparksoftware.com](http://www.dogparksoftware.com).

Both are free, but require that you register to ensure that you are a ham before you can download the software.

*continued on page 3*



## Mt. Diablo Amateur Radio Club W6CX

P.O. Box 23222  
Pleasant Hill, CA 94523  
(925) 932-6125

The *Carrier* is a monthly publication of the Mount Diablo Amateur Radio Club (MDARC). It is the policy of the editor to publish all material submitted by the membership provided such material is in good taste, relevant to amateur radio and of interest to MDARC members, and space is available.

All material must be submitted to the editor by the first day of the month of publication. Material is accepted on a first-in, first-out basis. Articles and other material may be submitted via Internet email to [carrier@gardnerclan.net](mailto:carrier@gardnerclan.net) or delivered to the editor at the address listed in the club roster. Material will be accepted in plain ASCII or rich text format (RTF). Material may also be submitted as hardcopy.

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The opinions expressed in the *Carrier* are solely those of the editor or other contributors and do not necessarily reflect the opinions of either the Board of Directors or membership of MDARC.

### Club Officers

#### President

Trevor Hall, WA6JAU (925) 680-5209  
[wa6jau@netzero.net](mailto:wa6jau@netzero.net)

#### Vice President

Bob Beard, KG6FPZ  
[rbeard@speakeasy.net](mailto:rbeard@speakeasy.net)

#### Secretary

Dick Schulze, AA6DL  
[rmschulze@earthlink.net](mailto:rmschulze@earthlink.net)

#### Treasurer

Harold Johnsen, AE6FC (925) 287-1054  
[ae6fc@arrl.net](mailto:ae6fc@arrl.net)

#### Emergency Coordinator

Dana Jones, K6BRR

#### Directors

Howard Burk, KE6PTT (925) 279-7208  
[ke6ptt@arrl.net](mailto:ke6ptt@arrl.net)

Jay Caldis, KT6Y (925) 939-1893  
[jcaldis@astound.net](mailto:jcaldis@astound.net)

Terry Matzkin, KE6WRE (925) 820-5848

Dick Brown, KT6X  
[dickjoanne@astound.net](mailto:dickjoanne@astound.net)

#### Membership Chairman

Pete Slagle, K6XL (925) 901-0217  
[mdarc-membership@k6xl.org](mailto:mdarc-membership@k6xl.org)

#### Carrier Editor

Jerry Gardner, W6UV (925) 735-7325  
[carrier@gardnerclan.net](mailto:carrier@gardnerclan.net)

#### Webmaster

Marvin Miller, WA6GBW (925) 829-3410

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TCP/IP: 145.71

## General Meeting Minutes

May 21, 2004

The club meeting of MDARC held at 1035 Carol Lane, Lafayette, on May 21, 2004 was called to order by vice president Bob Beard at 7:40 p.m.

**Treasurer's report:** Harold Johnsen reported the club has a balance of \$44,600.

**Emergency service:** John Pascale reported Races basic training would be held Saturday, May 22, 2004, at the San Ramon Administration Building, at the corner of Bollinger Canyon and Crow Canyon.

**PACIFICON report:** John Schulze gave a short report on the exciting events planned for this year, such as a swap meet on Sunday.

**Auction:** John Schulze reported the club made a net profit of over \$1,800 this year due to a few generous donations.

**Tech committee:** Keith Latin, with the help of our dedicated tech committee, installed new VHF and UHF antennas on the hill along with a new amplifier for the 220 repeater. There is a new DSL line in the repeater system for use by EchoLink and IRLP.

**Field Day:** Lauren Styles will be able to help John Pascale at field day this year. John is looking for band captains to run the bands. Bob Beard agreed to write a press release for the newspaper. The club meeting will be held at the field day location on the June 25.

**Picnic:** George Roush will host the club picnic on the third Saturday following the third Friday in July, at John Baldwin Park in Concord.

**Public Service:** Pete Harris was interviewed by Diablo Magazine for an article about ham radio and public service; the article will be in the July issue. Pete also thanked the ham operators who coordinated the 7 events we had this year.

**New Business:** Keith Latin brought a proposal to the club for a purchase of a new crank up tower for the club trailer. The tower is manufactured by Force 12, extends to 27', and costs \$1,329 +tax & shipping. The motion passed pending board approval.

**Program:** Robert Hampton gave an informative and interesting presentation about MARS.

**Door Prize:** The grand prize was a Yaesu FT2800 mobile radio and was won by John Schulze. Thank you!

The meeting was adjourned at 9:15 p.m.

Respectfully, John Schulze, KR6CR.

## Board Meeting Minutes

May 3, 2004

The meeting of the board of directors of MDARC, held on May 3, 2004, at Bakers Square Restaurant in Concord, was called to order by president, Trevor Hall, WA6JAU, at 7:30 p.m. The minutes of the April 5, 2004 meeting were approved.

**Board Members Present:** Bob Beard, KG6FPZ, Dick Brown, KT6X, Howard Burk, KE6PTT, Jay Caldis, KT6Y, Trevor Hall, Harold Johnsen, AE6FC, Dana Jones, K6BRR, Terry Matzkin, KE6WRE, and Dick Schulze, AA6DL.

**Other Members and Guests:** Tim Barrett, K6BIV, Dave Gordon, N6SWE, Keith Lattin, N6PMF, Trevor Raty, KG6MDW, George Roush, WB6OFH, and Pete Slagle, K6XL.

**Insurance:** There was an extensive discussion regarding insurance coverage for members but, since we did not have the policy at the meeting, it was difficult to reach firm conclusions. The issue will be considered later when the policy is available.

**Membership:** There are 204 paid family memberships. Dick Brown asked about a list of members who had not renewed. Pete will prepare a list of members who have not renewed and send it to Dick who will divide it up for board members to call to urge renewal.

**Directories:** Due to some omissions the board authorized Bob Beard to republish the directory to include all members current as of May 17<sup>th</sup>.

**iPod:** Tim Barrett said we received an iPod from Speakeasy as a gratuity for signing up for their service. Tim proposed that it be raffled for \$500. Trevor Raty will design the tickets, Bob Beard will print them and also handle the sales.

**Trailer Antenna:** Dave had a brochure on a Force 12 antenna. Keith will investigate.

**Web Server:** Trevor Raty said a server may be available through Tim Kilpatrick, at whose home we have our telephone line and DSL service. Trevor proposed that we could host our PACIFICON and MDARC web pages on this with a backup at his home and another backup at the home of Tim Barrett. There would be a saving of some \$31 per month by dropping the commercial servers. He will talk with the webmasters and get further information on the operation and cost of the server.

**Repeater Control Operators:** Howard is still reprogramming. On motion, the board authorized \$50 for the purchase of additional firmware for the controller. Trevor Raty will email codes to all control operators.

**Adjourned:** The meeting adjourned at 8:55 p.m.

Dick Schulze, Secretary

## MDARC Moves into the Digital World

*continued from page 1*

The IRLP software has the ability to connect the club's repeaters to other repeaters or to connect to conference servers located throughout the world. These connections are repeater to repeater connections and currently do not allow users to connect directly from their computers. The conference servers are located at wide pipe portals and have the ability to have more than 50 repeaters connected at the same time. The audio quality tends to be better on IRLP since it has more control over the repeaters in the system. They tend to frown on repeaters that do not strip their courtesy tones, hang time and IDer's from the Internet side of the connection. They also better control the speed of the connections required for the use of IRLP software. Almost all the connections on repeaters using IRLP software will be high speed DSL, T1 or cable modem connections.

The access of the distant nodes is easy. For an IRLP connection, simply touch tone the 4 digit node number of the station you want to connect to. You will be greeted by a "now connecting to xxxxx" message. Please wait for this greeting to finish before you begin to make a call. Please remember you may be connecting to a repeater in the middle of a conversation. So *waiting* to make sure is the rule. A simple "73" on the touch tone pad causes a disconnect. A list of active nodes can be gotten at <http://irlp.net>.

The access for EchoLink is similar to that of IRLP, but you must start the touch tone command with the "A" button first followed by the node number. In the case of EchoLink, the node numbers can be up to 6 digits. You will be greeted by a "now connecting to xxxxx" message. Please wait for this greeting to finish before you begin to make a call. Please remember you may be connecting to a repeater, link, or user in the middle of a conversation. So *waiting* to make sure is the rule. A simple "73" on the touch tone pad also causes a disconnect of the EchoLink connection.

*Please remember to id before you run any touch tone commands.*

The system is designed to *not* allow cross connections be-

tween the two services.

The purpose of this new system is a system that is *used* by our members. So go ahead and try it, you'll like it.

## FCC Extends BPL Reply Comments Filing Deadline

NEWINGTON, CT, May 27, 2004—The FCC has extended the deadline to file reply comments in its broadband over power line (BPL) proceeding, ET Docket 04-37, from Tuesday, June 1, to Tuesday, June 22. The Commission released its BPL Notice of Proposed Rule Making (NPRM) February 23, and the initial comment deadline passed May 3. The FCC acted on a request from the National Antenna Consortium and the Amherst Alliance (NAC/Amherst) for a much longer filing deadline extension. The NAC/Amherst petition cited the anticipated release of the National Telecommunications and Information Administration (NTIA) Phase 2 BPL study in making its request for a filing delay. The organizations said the FCC was not allowing stakeholders adequate time to prepare comments to address the two-part NTIA report on BPL interference. The FCC said the NTIA has indicated that it will submit comments and a technical appendix in the BPL proceeding this week. Those submissions are expected to contain key findings of the Phase 2 report, due to be released later this year.

## FCC Proposes Wide-Ranging Changes to Amateur Service Rules—Not Restructuring

NEWINGTON, CT, Apr 15, 2004—The FCC has released an "omnibus" Notice of Proposed Rule Making (NPRM) that seeks comments on a wide range of proposed Amateur Service (Part 97) rules changes. The NPRM is not related to the three amateur licensing restructuring petitions—including one from ARRL—for which the comment period ended April 23 (see "FCC Invites Comments on Amateur Radio Restructuring Plans"). The FCC also denied several petitions for rule making aimed at altering portions of the Amateur Radio regulatory landscape and ordered minor changes in Part 97 that become effective June 1. The NPRM is a result of a dozen petitions for rule making, some filed more than a year ago and a few dating back as far as 2001. Comments on the proposals put forth in WT Docket 04-140 are due by Tuesday, June 15, with reply comments by Wednesday, June 30. Among other changes, the FCC has recommended adopting the ARRL's "Novice refarming" plan.

"Because the ARRL petition addresses the operating privileges of all classes of licensees on these Amateur Service bands, we believe that the ARRL petition provides a basis for a comprehensive restructuring of operating privileges," the FCC said in its NPRM. The FCC is gathering comments on restructuring but has not acted on the matter. "We note that, as proposed, no licensees would lose any spectrum privileges and that General, Advanced, and Amateur Extra Class licensees would gain spectrum for phone emissions, one of the most popular operating modes on the HF bands."

The ARRL referenced its Novice refarming proposal in its recent Petition for Rule Making, RM-10867, which, along with three other petitions, remains open for comment until Friday, April 23.

The FCC also has proposed essentially eliminating its rules

prohibiting manufacture or marketing of Amateur Radio Service power amplifiers capable of operating between 24 and 35 MHz. Originally put on the books in 1978 to keep high-powered amateur amplifiers out of the hands of CBers, the rules now "impose unnecessary restrictions on manufacturers of Amateur Radio equipment and are inconsistent with the experimental nature of the Amateur Service," the FCC said in its NPRM. The Commission noted that its Part 95 rules governing the Citizens Radio Service already prohibit use of external power amplifiers with CB equipment, which must be FCC certificated. *[At the rate the FCC and ARRL are going, CB and amateur radio will be one and the same before long. – Ed.]*

## Virginian is first US ham to accomplish "Tuna Tin II" WAS

NEWINGTON, CT, June 8, 2004—It took him four years, but a ham from Bealeton, Virginia, has become the first US amateur licensee to work all states using a flea-power "Tuna Tin II" transmitter. ARRL member Bob Chapman, W9JOP, recently completed his "QRPP" (less than 1 W output) accomplishment and has received his ARRL Worked All States Award certificate. "Unfortunately, ARRL does not issue a certificate for WAS QRPP," he said. "Mine is endorsed with 'QRP-CW.'" Chapman, 71, says he actually used two Tuna Tin transmitters to accomplish the feat. He worked and confirmed the contiguous 48 states with a classic Tuna Tin, which uses an inverted tuna can as a chassis. Not only was Chapman running just 250 mW—one-quarter of a watt—he was crystal controlled on 7043 kHz! Chapman says he snagged the last two states, Hawaii (KH6U) and Alaska (WL7WH) using a homebrew 20-meter Tuna Tin, rockbound on 14,060 kHz and also running 250 mW. "No QRO here," Chapman says of his setup. "Just a low-power, low-tech station with a G5RV wire antenna at 50 feet and a 'TiCK' keyer." He uses a vintage Collins 51S-1 receiver. A ham for 50 years, Chapman further points out that he accomplished his QRPP WAS without any schedules but "just by waiting for the states to pass within my capture area—namely, on my frequency," he said. He also has a QRP Amateur Radio Club International QRPP Worked All States certificate. His wife, Joy, is KA9TTB. In 2001 Steve McDonald, VE7SL, in British Columbia, Canada, became the world's first amateur to accomplish QRPP WAS using a Tuna Tin II running about 400 mW.

## K7RA Solar Update

SEATTLE, WA, Jun 4, 2004—The sun appears nearly blank, with one small spot, Sunspot 621, facing Earth. There are no other noticeable areas of activity, however. Just two days ago there were several more sunspots, but they are no longer visible. These sunspots didn't rotate off the visible disk but just faded from view.

Sunspot numbers and solar flux are understandably quite low. Average daily sunspot numbers for the May 27 through June 2 period was nearly 40 points lower than the daily average for the previous seven days. Over the same period, average daily solar flux was down almost seven points. Fortunately, geomagnetic activity was low. Over the weekend conditions were unsettled, but otherwise several days had mid-latitude geomagnetic A indices in the single digits.

Over the next week expect low geomagnetic activity. Planetary A index for June 4-8 is expected at 10, 8, 8, 10 and 10. Solar flux values for the same days are predicted to be 90, 95,

95, 100 and 100. Solar flux is expected to peak between June 11-16 around 110.

Now that May is over, we should look at some monthly trends over the last year. The monthly average of daily sunspot numbers for May 2003 through May 2004 was 89.6, 118.4, 132.8, 114.3, 82.6, 118.9, 103, 75.7, 62.3, 75.6, 81, 59.3 and 77. The monthly average of daily solar flux for the same 13 months was 116.6, 129.4, 127.7, 122.1, 112.2, 155.5, 140.8, 116.1, 114.1, 107, 112.1, 101.2 and 99.8. Solar flux hit a new monthly low during May for this downward side of the solar cycle when it dropped below 100.

## Upcoming 2004 Public Service Events

By Pete Harris, KE6ZIW

The events listed below are coming up in the near future and *we still have some slots available*. For most events all you need is a hand-held 2 meter radio and an extra battery. Give me a call or email to sign up (925-228-4503, pharris125@comcast.net).

1. Oakland Hills Trailride  
6/19/04, Redwood & Chabot Regional Parks  
Radio Coordinator: Tom Seabury
2. 4th of July Parade  
7/4/04, Downtown Pleasant Hill  
Radio Coordinator: Pete Harris
3. Alcatraz Challenge  
7/?/04, San Francisco Waterfront & Bay  
Radio Coordinator: Barry Bettman



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Thursday, 7:00pm  
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Jim Brunk, N6BHX  
East County      146.535 Simplex  
Drew Hanson, KD6GLY  
South County      146.355/+ (100 PL)  
Ed Ritchie, K6SFD  
West County      145.110/-  
Steve Adams, KF6WNH

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### OAKLAND, CA

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oakland@hamradio.com

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So. from Hwy. 101  
sunnyvale@hamradio.com

### NEW CASTLE, DE

(Near Philadelphia)  
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(302) 322-7092  
(800) 644-4476  
Jim, KA3LLL, Mgr.  
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newcastle@hamradio.com

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Leon, N7LXX, Mgr.  
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Gary, N7GJ, Mgr.  
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- 50 Watt out • Alpha numeric display
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**FT-1000MP MKV** HF Trans.

- Enhanced Digital Signal Processing
- Dual RX
- Collins SSB filter built-in
- 200W, External power supply

**Low Pricing!**

## CALENDAR OF EVENTS

June 7	7:30 pm	MDARC Board Meeting	Baker's Square Willow Pass, Concord
June 25	7:30 pm	MDARC General Meeting	Lundborg Landing Bethel Island
June 26-27		ARRL Field Day	
June 30		July <i>Carrier</i> Deadline	

**The Carrier**  
**Newsletter of the Mt. Diablo Amateur Radio Club**  
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***MDARC Meeting: June 25***